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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Hadden *et al.*  
Serial No. 09/837,076  
Filed: 04/18/2001  
For: **PERFORMANCE-BASED TRAINING ASSESSMENT**

Examiner: Joe Cheng  
Art Unit: 3713

Commissioner for Patents  
Washington, D.C. 20231

Sir:

**PETITION TO MAKE SPECIAL FOR ACCELERATED PROSECUTION**

Applicant herein petitions the Director to accelerate examination of the above-identified application as set forth under 37 C.F.R. 1.102(d). A credit card payment form for \$130.00 is enclosed to pay the fee associated with this Petition to Make Special, as required by 37 C.F.R. 1.17(i). If any additional fees are required in association with this petition, the Director is hereby authorized to charge them to Deposit Account 50-1732 and consider this a petition therefor. All claims presented in the originally filed application are directed to a single invention. If it is determined that a restriction requirement is necessary, an election will be made without traverse.

For the claimed invention, a pre-examination search was made under the instruction of Examiner Joe Cheng, who recommended searching in Class 434, Subclasses 118, 219, 234, 236, 238, 258, 307, 308R, 322, 323, 362, and 365. Extensive Boolean searching was also conducted using various patent databases. A copy of each of the references being most closely related to the subject matter encompassed by the claims was submitted in an information disclosure statement filed August 7, 2001. A copy of the PTO-1449 form submitted therewith is enclosed for the Examiner's convenience in making consideration of these references of record. A detailed discussion of these references follows after a brief overview of the invention.

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**OVERVIEW OF THE CLAIMED INVENTION**

The present invention analyzes the impact of known or unknown events on the fulfillment of business goals. In light of a defined business strategy, a performance outcome related to the business goal is analyzed to determine the effect of an event on

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the business goal. For training evaluation, the actual impact of training given for particular skills on job and business performance is readily determined. Accordingly, the broadest claims are directed to a method with the steps of quantifying a first actual performance metric of an individual carrying out a defined performance before an event occurrence bearing on an actual skill level of the individual; quantifying a second actual performance metric of the individual carrying out the defined performance after the event occurrence; and determining a result of the event occurrence on an ability of the individual to carry out the defined performance based on the first and second actual performance metrics.

### **DISCUSSION OF REFERENCES**

U.S. Patent Number 5,416,694 to Parrish *et al.* discloses a computer system and a method for a computer-based data integration and management processing system and a method for workforce planning and occupational readjustment. The system and method uses a number of databases that are either created internally or are imported from existing databases. These databases are manipulated by the invention for skill matching analysis based on a rigorous behavioral skill analysis of target occupations, using one or more predetermined analysis metrics and an examination of an individual's skills using metrics with similar behavioral attributes. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent Number 5,545,044 to Collins *et al.* discloses a method and apparatus for automated learning and performance evaluation of a group of items by a user. The apparatus, which can be a digital computer, has input means for receiving a user's response, a display means for presenting the material to be learned and logic means for sorting the items. The method, which can be practiced on a digital computer, has steps of querying the user as to whether items are believed to be known or unknown, sorting the items into groups of perceived known and unknown items and generating a sequence of items to be displayed. The user is tested regarding his belief as to whether the item is known or unknown not as to his actual knowledge. The

reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 5,577,919 to Collins *et al.* discloses a method and apparatus for automated learning and performance evaluation of a group of items by a user. The apparatus, which can be a digital computer, has an input for receiving a user's response, a display for presenting the material to be learned and logic for sorting the items and responses. The method, which can be practiced on a digital computer, has steps of querying the user as to whether items are believed to be known or unknown, sorting the items into groups of perceived known and unknown items and generating a sequence of items to be displayed. The user's biological needs for learning are matched automatically with an apparatus employing a method that leaves the user with no opportunity to fail. Unusual learning results are obtained from an unobvious method. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 5,788,504 to Rice *et al.* discloses a Computerized Training Management System (CTMS) for providing a procedurally defined process that is employed to develop accreditable performance based training programs for job classifications that are sensitive to documented regulations and technical information. CTMS is a database that links information needed to maintain a five-phase approach to training-analysis, design, development, implementation, and evaluation independent of training program design. CTMS is designed using R-Base.RTM., an-SQL compliant software platform. Information is logically entered and linked in CTMS. Each task is linked directly to a performance objective, which, in turn, is linked directly to a learning objective; then, each enabling objective is linked to its respective test items. In addition, tasks, performance objectives, enabling objectives, and test items are linked to their associated reference documents. CTMS keeps all information up to date since it automatically sorts, files and links all data; CTMS includes key word and reference

document searches. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 5,813,945 to Bernacki discloses an instructional, training, and assessment apparatus for use in the activity of swimming. The apparatus includes a cable having a proximal end and a distal end, and a harness for coupling the distal end of the cable to a swimmer. A motorized drum mechanism is coupled to the proximal end of the cable for winding and unwinding the cable to apply forces to the swimmer as the swimmer swims laps in a pool. A pressure roller applies pressure to the cable as it is wound and unwound in multiple layers upon the drum. A bailer sheave and idler roller engaged with the sheave and mounted on shafts transverse to the drum guide the cable in even rows onto the drum. A cable diameter limit sensor coupled to the above described bailer sheave and the motorized drum senses the increased diameter of the distal end of the cable whereupon the motorized drum halts the winding action in response to the limit sensor signal. Cable speed and force sensors are provided for generating output signals responsive to the speed of and force exerted on the cable. The apparatus also includes a controller responsive to the output signal from the force sensor and the speed sensor and to an external speed parameter represented by a reference signal for controlling the forces applied by the winding and unwinding mechanism. The controller of the apparatus further includes a signal averaging means coupled to the speed sensor signal and to the controller limiting the rate of change of positive forces to the swimmer while the swimmer is swimming in response to changes in the swimmer's speed. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 5,879,165 to Brunkow *et al.* discloses a method using a computer for creating and comprehensively analyzing in an integrated manner a test and course of study or job performance, assessing multiple transferable skills within the context of course competencies at the individual test assessment level, comprising the

steps of selecting a desired taxonomy system having a plurality of taxonomy items defining abilities relating to learning, performance or achievement pertaining to the course of study, storing in memory an assessment item, the proposed answers, and the correct answer, for each assessment item, storing in memory the appropriate taxonomy items in the taxonomy system that pertain to the abilities which the respective assessment item addresses, repeatedly storing in memory a new assessment item, the appropriate taxonomy items, and appropriate proposed and correct answer for each assessment item, to create an entire test of a common variety (multiple choice, essay, performance) and so as to allow retrieval of all answers and coded information for each assessment item, analyzing the test by generating a report showing the relationship between the pre-selected taxonomy items and each assessment item to which the taxonomy items are assigned. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 5,947,747 to Walker *et al.* discloses methods and apparatuses for computer-based evaluation of a test-taker's performance with respect to selected comparative norms. The system includes a home testing computer for transmitting the test-taker's test results to a central computer, which derives a performance assessment of the test-taker. The performance assessment can be standardized or customized, as well as relative or absolute. Further, the transmitted test results are configured to reliably associate the student with his test results, using encoding, user identification, or corroborative techniques to deter fraud. Thus, for example, the system allows a parentally-controlled reward system such that children who reach specified objectives can claim an award that parents are confident was fairly and honestly earned without the parent being required to proctor the testing. Fraud, and the need for proctoring, is also deterred during multiple student testing via an option for simultaneous testing of geographically dispersed test-takers. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 5,963,931 to Fagg, III *et al.* discloses a system for assisting a user in making decisions on a task through the asking of questions about the task and providing answer choices to the questions for the user. The system includes a set of question procedures that include a reference to another procedure and also answer procedures that include references to other procedures. Questions are dynamically generated by executing a question procedure which, in turn, calls a referenced procedure to generate a result based on one or more previous answers by the user. The referenced procedure passes the result to the question procedure for use in generating the question. The same process is used for dynamically generating answer choices for the questions. The referenced procedures may include, among other things, fetches of previous answers, conditional statements that choose among possible results based on a previous answer, or references to still other procedures. With this system, the questions and answers are kept current as the user moves through them. Advice for the questions and answer choices may also be dynamically generated. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 5,980,429 to Nashner discloses a system and method for monitoring training programs prescribed to benefit a subject. A training program prescriber may evaluate training effectiveness from a separate location from where a subject performs training tasks. Accuracy of actual task performances is measured and is compared with quality-benchmark data. The number of tasks actually performed is recorded and is compared with quantity-benchmark data. Benchmark-data may be obtained from previous subject performances or from performance by a defined reference population. Categorized results are calculated and assessments regarding program difficulty and motivation of the subject may be formulated. Compliance with expected program goals is analyzed and monitored. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,018,732 to Bertrand *et al.* discloses a system that provides a goal based learning system utilizing a rule based expert training system to provide a cognitive educational experience. The system provides the user with a simulated environment that presents a business opportunity to understand and solve optimally. Mistakes are noted and remedial educational material presented dynamically to build the necessary skills that a user requires for success in the business endeavor. The system utilizes an artificial intelligence engine driving individualized and dynamic feedback with synchronized video and graphics used to simulate real-world environment and interactions. Multiple "correct" answers are integrated into the learning system to allow individualized learning experiences in which navigation through the system is at a pace controlled by the learner. A robust business model provides support for realistic activities and allows a user to experience real world consequences for their actions and decisions and entails realtime decision-making and synthesis of the educational material. The system includes tools for analysis, logging and display of regression analysis information for a presentation as it is presented. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,032,141 to O'Connor *et al.* discloses a system that provides a goal based learning system utilizing a rule based expert training system to provide a cognitive educational experience. The system provides the user with a simulated environment that presents a business opportunity to understand and solve optimally. Mistakes are noted and remedial educational material presented dynamically to build the necessary skills that a user requires for success in the business endeavor. The system utilizes an artificial intelligence engine driving individualized and dynamic feedback with synchronized video and graphics used to simulate real-world environment and interactions. Multiple "correct" answers are integrated into the learning system to allow individualized learning experiences in which navigation through the system is at a pace controlled by the learner. A robust business model provides support for realistic activities and allows a student to experience real world consequences for their actions and decisions and entails realtime decision-making and synthesis of the educational

material optimized for the student's unique personality. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,073,127 to Lannert *et al.* discloses a system that provides a goal based learning system utilizing a rule based expert training system to provide a cognitive educational experience. The system provides the user with a simulated environment that presents a business opportunity to understand and solve optimally. Mistakes are noted and remedial educational material presented dynamically to build the necessary skills that a user requires for success in the business endeavor. The system utilizes an artificial intelligence engine driving individualized and dynamic feedback with synchronized video and graphics used to simulate real-world environment and interactions. Multiple "correct" answers are integrated into the learning system to allow individualized learning experiences in which navigation through the system is at a pace controlled by the learner. A robust business model provides support for realistic activities and allows a user to experience real world consequences for their actions and decisions and entails realtime decision-making and synthesis of the educational material. A dynamic feedback system is utilized that provides video, electronic mail, chatroom, Internet, simulation, multimedia and time-synchronized information to a user to assist in defining the educational goal. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,081,786 to Barry *et al.* discloses systems, methods and computer program products for guiding selection of a therapeutic treatment regimen for a known disease such as HIV infection are disclosed. The method comprises (a) providing patient information to a computing device (the computer device comprising: a first knowledge base comprising a plurality of different therapeutic treatment regimens for the disease; a second knowledge base comprising a plurality of expert rules for selecting a therapeutic treatment regimen for the disease; and a third knowledge base comprising advisory information useful for the treatment of a patient with different



constituents of the different therapeutic treatment regimens; and (b) generating in the computing device a listing (preferably a ranked listing) of therapeutic treatment regimens for the patient; and (c) generating in the computing device advisory information for one or more treatment regimens in the listing based on the patient information and the expert rules. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,116,652 to Page discloses a learning materials delivery system containing an instruction unit. The instruction unit has a number of instruction sets, and each instruction set corresponds to a lesson in the instruction unit on an instruction subject. Each instruction set bears indicia corresponding to the instruction subject and includes a first instruction document, a second instruction document, and optionally one or more resource documents. The documents include information relating to the instruction unit and the instruction sets. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,119,097 to Ibarra discloses a method and apparatus which enables a supervisor to quantify job performance characteristics. The method accomplishes job performance quantification and tracking of performance by a series of steps which include using an employee problem-solving worksheet provided on a computer display to identify objective standards for the employee, identify and assign at least one objective activity to the employee which should enable the employee to meet the objective standards, completing a monthly evaluation of the person to determine whether or not the objective activities are being accomplished, and if so, whether the employee is at least meeting the objective standards. If the objective standards are not being met, the objective standards are re-evaluated to determine if they are realistic, and if they are, then new activities are assigned which should enable the person to meet the original or modified objective standards. The reference fails to disclose

determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,125,358 to Hubbell *et al.* discloses a system that provides a goal based learning system utilizing a rule based expert training system to provide a cognitive educational experience. The system provides the user with a simulated environment that presents a business opportunity to understand and solve optimally. Mistakes are noted and remedial educational material presented dynamically to build the necessary skills that a user requires for success in the business endeavor. The system utilizes an artificial intelligence engine driving individualized and dynamic feedback with synchronized video and graphics used to simulate real-world environment and interactions. Multiple "correct" answers are integrated into the learning system to allow individualized learning experiences in which navigation through the system is at a pace controlled by the learner. A robust business model provides support for realistic activities and allows one or more users to experience real world consequences for their actions in one or more simulated environments and make decisions that entail realtime decision-making and synthesis of the educational material. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,128,608 to Barnhill discloses a system and method for enhancing knowledge discovery from data using multiple learning machines in general and multiple support vector machines in particular. Training data for a learning machine is pre-processed in order to add meaning thereto. Pre-processing data may involve transforming the data points and/or expanding the data points. By adding meaning to the data, the learning machine is provided with a greater amount of information for processing. With regard to support vector machines in particular, the greater the amount of information that is processed, the better generalizations about the data that may be derived. Multiple support vector machines, each comprising distinct kernels, are trained with the pre-processed training data and are tested with test data that is pre-processed in the same manner. The test outputs from multiple support vector machines

are compared in order to determine which of the test outputs if any represents a optimal solution. Selection of one or more kernels may be adjusted and one or more support vector machines may be retrained and retested. When it is determined that an optimal solution has been achieved, live data is pre-processed and input into the support vector machine comprising the kernel that produced the optimal solution. The live output from the learning machine may then be post-processed into a computationally derived alphanumeric classifier for interpretation by a human or computer automated process. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,134,539 to O'Connor *et al.* discloses a system that provides a goal based learning system utilizing a rule based expert training system to provide a cognitive educational experience. The system provides the user with a simulated environment that presents a business opportunity to understand and solve optimally. Mistakes are noted and remedial educational material presented dynamically to build the necessary skills that a user requires for success in the business endeavor. The system utilizes an artificial intelligence engine driving individualized and dynamic feedback with synchronized video and graphics used to simulate real-world environment and interactions. Multiple "correct" answers are integrated into the learning system to allow individualized learning experiences in which navigation through the system is at a pace controlled by the learner. A robust business model provides support for realistic activities and allows a user to experience real world consequences for their actions and decisions and entails realtime decision-making and synthesis of the educational material. A dynamic feedback system is utilized to provide a report on one or more students' progress to assist in defining the educational goal. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,157,808 to Hollingsworth discloses a computer system and a method for a computer-based data integration and management processing system and

a method to support an efficient management of employee development, training and performance improvement in a performance-competence based organization. Included is an integrated system that provides an ability to develop training material, career paths or to determine an employee's qualifications and performance. Comprehensive support is provided for job and task analysis; learning objective development; standards and processes; objective, reference based test items; examination and evaluations; training program identification and content description; training scheduling; training-evaluation documentation; and reporting. Each job defined in the current system has specific duties, tasks and skills associated with an identified job. Because the specific skills can be represented by accepted standards of certification; the system is able to establish an association between the certifications and employees responsibilities. This association permits the system to instantly identify the level of qualification of any employee and verify that the employee is qualified to perform the duties assigned. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

U.S. Patent No. 6,190,287 to Nashner discloses a system and method for monitoring training programs prescribed to benefit a subject. A training program prescriber may evaluate training effectiveness from a separate location from where a subject performs training tasks. Accuracy of actual task performances is measured and is compared with quality-benchmark data. The number of tasks actually performed is recorded and is compared with quantity-benchmark data. Benchmark-data may be obtained from previous subject performances or from performance by a defined reference population. Categorized results are calculated and assessments regarding program difficulty and motivation of the subject may be formulated. Compliance with expected program goals is analyzed and monitored. The reference fails to disclose determining a result of an event occurrence on an ability of an individual to carry out a defined performance based on first and second actual performance metrics.

Applicant herein respectfully submits this Petition to Make Special to request accelerated prosecution of the application. If there are any issues relating to the petition

or to the pending application, the undersigned attorney of record welcomes a telephone conference to resolve these issues in order to have the petition granted and accelerate prosecution of the application.

Respectfully submitted,

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